Claims:

1.   A method of performing video encoding comprising:

adjusting a video encoding rate employed during video encoding based at least in part

on an estimation of motion for a selected portion of a video image being encoded.

2.   The method of claim 1, wherein the selected portion of the video image comprises a

macroblock.

3.   The method of claim 2, wherein the video encoding rate is also adjusted based at least

in part on the type of macroblock.

4.   The method of claim 3, where in the types comprise at least one of the following: intra,

inter, 4 MV, and B.

5.   The method of claim 1, wherein the video encoding rate is adjusted by adjusting the

quantization step size employed during video encoding.

6.   The method of claim 5, wherein the selected portion of the video image comprises a

macroblock.

7.   The method of claim 6, wherein the video encoding rate is also further adjusted based

at least in part on the type of macroblock.

8.   The method of claim 7, wherein the types comprise at least one of the following: intra,

inter, 4 MV, and B.

9.   The method of claim 1, wherein the video encoding performed is substantially MPEG or H.26x compliant.

10.   The method of claim 1. wherein the estimate of the motion comprises the sum of absolute differences (SAD) or its substitute.

11.   A device having the capability to perform video encoding comprising:

a mechanism to adjust a video encoding rate employed during the video encoding based at least in part on an estimate of motion for a selected portion of a video image being encoded;

wherein said mechanism is implement within a video encoder.

12.   The device of claim 11, wherein said video encoder is implemented in silicon on at least one integrated circuit.

13.   The device of claim 12, wherein the silicon implementation of said video encoder comprises microcode.

14.   The device of claim 12, wherein the silicon implementation of said video encoder comprises firmware.

15.   The device of claim 11, wherein said video encoder is implemented in software capable of executing on a processor.

16.   The device of claim 15, wherein said processor comprises a microprocessor.

17.   The device of claim 11, wherein the estimate of the motion comprises the SAD or its substitute.

18.   An article comprising: a storage medium, said medium having stored thereon instructions that, when executed, result in the performance of video encoding by:

adjusting a video encoding rate employed during video encoding based at least in part on an estimate of motion for a selected portion of a video image being encoded.

19.   The article of claim 18, wherein said medium further has stored thereon instructions that, when executed, result in the selected portion of the video image being encoded comprising a macroblock.

20.   The article of claim 19, wherein said medium further has stored thereon instructions, that, when executed, result in the video encoding rate being adjusted also based at least in part on the type of macroblock.

21.   The article of claim 18, wherein said medium further has stored thereon instructions that, when executed, result in the estimate of motion comprising the SAD or its substitute.

22.   The article of claim 18, wherein said medium further has stored thereon instructions that, when executed, result in the video encoding rate being adjusted by adjusting the quantization step size employed during video encoding.

23.   A video processing platform comprising:

a video encoder;

a video input device coupled to said video encoder; and

memory;

wherein said memory is coupled to said video encoder to store video encoded by said

video encoder; and

wherein said video encoder includes a mechanism to adjust a video encoding rate

employed during video encoding based at least in part on an estimate of motion for a selected

portion of a video image being encoded.

24.   The system of claim 23, wherein the selected portion of the video image comprises a

macroblock.

25.   The system of claim 24, wherein the mechanism to adjust the video encoding rate

employed during video encoding is also based at least in part on the type of macroblock.

26.   The system of claim 23, wherein the mechanism to adjust the video encoding rate

employed during video encoding is adjusted by adjusting the quantization step size employed

during video encoding.

27.   The system of claim 23, wherein the estimate of the motion comprises the SAD or its

substitute.

28.   A method of performing video decoding comprising:

decoding video that has been encoded, wherein said encoded video was encoded by

adjusting a video encoding rate employed during video encoding based at least in part on an estimate of motion for a selected portion of a video image being encoded.

29.　The method of claim 28, wherein the selected portion of the video image comprises a macroblock.

30.　The method of claim 29, wherein the video encoding rate is also adjusted based at least in part on the type of macroblock.

31.　The method of claim 28, wherein the video encoding rate is adjusted by adjusting the quantization step size employed during video encoding.

32.　The method of claim 28, wherein the selected portion of the video image comprises a macroblock.

33.　The method of claim 32, wherein the video encoding rate is also further adjusted based at least in part on the type of macroblock.

34.　The method of claim 28, wherein the estimate of the motion comprises the SAD or its substitute.

35.　A video processing platform comprising:

a video decoder;

a video output device coupled to said video decoder; and

memory;

wherein said memory is coupled to said video decoder to store video previously encoded by a video encoder, wherein said video encoder included a mechanism to adjust a video encoding rate employed during the video encoding based at least in part on an estimate of motion for a selected portion of a video image being encoded.

36.   The system of claim 35, wherein the selected portion of the video image comprises a macroblock.

37.   The system of claim 36, wherein the mechanism to adjust the video encoding rate employed during video encoding is also based at least in part on the type of macroblock.

38.   The system of claim 35, wherein the mechanism to adjust the video encoding rate employed during video encoding is adjusted by adjusting the quantization step size employed during video encoding.

39.   The system of claim 35, wherein the estimate of the motion comprises the SAD or its substitute.

40.   An article comprising: a storage medium, said medium having stored thereon instructions that, when executed, result in the performance of video decoding by:

decoding video that has been encoded, wherein said encoded video was encoded by adjusting a video encoding rate employed during video encoding based at least in part on an estimate of motion for a selected portion of a video image being encoded.

41.   The article of claim 40, wherein said medium further has stored thereon instructions

that, when executed, result in the selected portion of the video image being encoded comprising a macroblock.

42.   The article of claim 41, wherein said medium further has stored thereon instructions, that, when executed, result in the video encoding rate being adjusted also based at least in part on the type of macroblock.

43.   The article of claim 40, wherein said medium further has stored thereon instructions that, when executed, result in the video encoding rate being adjusted by adjusting the quantization step size employed during video encoding.

44.   A method of creating a video encoding rate control table comprising:

computing a relationship between the number of bits and SAD or its substitute of a plurality of video images for a variety of quantization step sizes;

preparing a look up table to provide quantization step size substantially in accordance with the computed relationship.

45.   The method of claim 44, wherein the relationship is computed for subportions of the video images.

46.   The method of claim 45, wherein the subportions comprise macroblocks.

47.   The method of claim 46, wherein the relationship is computed for macroblock types.

48.   The method of claim 45, wherein the look up table is prepared by quantizing the

number of bits and the SAD or its substitute.

49.	An article comprising:

a storage medium having stored thereon a look up table, said table comprising a

relationship between the number of bits and SAD or its substitute of a plurality of video images

for a variety of quantization step sizes.

50.	The article of claim 49, wherein said storage medium further includes instructions

stored thereon to employ the look up table to perform video encoding rate control.

51.	The article of claim 50, wherein the look up table is employed to perform video

encoding rate control when the instructions are executed by a processor.